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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,055	10/07/2003	Creighton P. Conley	P32555D2	5675

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EXAMINER	
VU, JAKE MINH	

ART UNIT	PAPER NUMBER
1618	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/681,055	CONLEY ET AL.	
	Examiner	Art Unit	
	Jake M. Vu	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-20 and 44-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-20 and 44-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of Applicant's Information Disclosure Statement and Preliminary Amendment filed on 10/07/03. Applicant has cancelled claims 1-16, 21-43, and 56-58. Claims 17-20 and 44-55 are pending in the instant application.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 17-20 and 44-55 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over U.S. Patent No. 6756057, 6746692, 6783773, 6660299, 6878386, and 6294199. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patents recite a method of treating bacterial infection by administering a modified release formulation comprising amoxicillin ranging from 1700 mg to 2500 mg, clavulanate ranging 0 mg to 150 mg, xanthan gum as the retarding polymer, and an organic acid such as citric acid. Additionally, the patents recite plasma concentrations, Cmax, AUC, MIC, monolith

tablets, single or multiple tablets, sachet and granules. The modified release tablets have a slow-release layer and an immediate layer.

The references do not specifically teach adding the active ingredients in the amounts claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicant's invention.

Claims 17-20 and 44-55 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over copending Application No. 09/974596, 10/870818, 10/412177, 10/681055. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending applications recite a method of treating bacterial infection by administering a modified release formulation comprising amoxicillin ranging from 1700 mg to 2600 mg, clavulanate ranging 0 mg to 150 mg, xanthan gum as the retarding polymer, and an organic acid such as citric acid. Additionally, the patents recite plasma concentrations,

Cmax, AUC, MIC, monolith tablets, single or multiple tablets, sachet and granules. The modified release tablets have a slow-release layer and an immediate layer.

The references do not specifically teach adding the active ingredients in the amounts claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicant's invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-20 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by GISBY (US 5,658,887).

Applicant's claims are direct to an immediate release pharmaceutical formulation comprising of 950-1300mg or 1900-2600mg of amoxycillin in combination with a pharmaceutically acceptable excipient.

GISBY disclosed a pharmaceutical formulation comprised of: 125-3000mg per unit dose (col. 3, line 45) of amoxycillin trihydrate or sodium amoxycillin (col. 2, line 10-15) and may contain a pharmaceutically acceptable material (col. 2, line 31-32). The formulation can be made up in the form of tablets, suspensions, solutions or reconstitutable powders (col. 2, line 29-30).

Note, the GISBY formulation is given 1-6 times a day (col. 3, line 24); therefore, it can be in the immediate release form, because conventional (immediate release) amoxicillin is given 4 times a day.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-20 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over GISBY (cited supra).

As discussed above, GISBY disclosed a pharmaceutical formulation comprised of: 125-3000mg per unit dose (col. 3, line 45) of amoxycillin trihydrate or sodium amoxycillin (col. 2, line 10-15) and may contain a pharmaceutically acceptable material (col. 2, line 31-32). The formulation can be made up in the form of tablets, suspensions, solutions or reconstitutable powders (col. 2, line 29-30).

GISBY does not specifically teach adding the ingredients in the amounts claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicant's invention.

Claims 17-20 and 44-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over EBBERS et al (WO 95/20946) in view of PANOZ et al (US 5,051,262).

EBBERS teaches a bilayered amoxycillin and potassium clavulanate, where the compounds can be in either layer (abstract). The tablet comprises these compounds in ratio from 30:1 to 1:1. The formulation may provide extended plasma levels of their active materials content, for example of amoxycillin and clavulanate after digestion, to

provide a twice-daily dosing regimen (pg. 1, line 17-19). The differing relative rate of release of active material from the first and second layers of the table may be achieved in various ways. For example different rates of release may be achieved by a first layer, which is a rapid-release layer, i.e. which releases the bulk of its active material content within a relatively short time, for example within 1 hour and a second layer which is a slow release layer, i.e. which releases the bulk of its active material content during a relatively long period after oral ingestion or is delayed after oral ingestion (pages 2-3). Rapid release layers may for example be rapid disintegrating layers having a composition similar to that of known rapid-disintegrating tablets. For example, the composition may comprise principally active material content, binders, compression aids, fillers, diluents, disintegrants, microcrystalline cellulose and lubricants (page 3, lines 6-16). Slow release layers may have a composition that comprises active material content together with a release retarding material, such as hydrocolloids, hydroxypropyl methylcellulose (pg. 3, line 37), natural and synthetic gums (page 4, lines 8-12). Different rates of release may also be achieved by having a first layer which his slow release and a second layer which is slow or delayed release. These layers would differ in their composition, so that they comprise different quantities, combinations or types of release-retarding material and/or soluble excipients, further comprising barrier layers (pg. 5, line 37) and/or compact granules (pg. 8, line 34 and pg. 13, line 10), etc. Additionally or alternatively such first and second layers may for example differ in the relative amounts of active material content in the first and second layers. The tables may be prepared by non-aqueous wet granulation (see page 12-13). The tablet and

granule formulations may be formed by known compression tabletting techniques for example using a known multi-layer tabletting press. Typically the active material content, and/or modifiers, buffers, tillers and/or diluent, release retarding agents, disintegrants and binders, when used are mixed, and then lubricants and compression aids are added (see page 9).

EBBER does not disclose adding citric acid as claimed by Applicant.

PANOZ teaches using citric acid (col. 5, line 61) in a controlled-release formulation (title) to provide a microenvironment in which the locally modified pH helps to protect the active ingredient from degradation. Additionally, PANOZ disclosed that milled granulation was well known in the prior art (col. 7, Example 4).

It would have been obvious to the person of ordinary skill in the art at the time the invention was made to incorporate citric acid into EBBERS' composition and granules. The person of ordinary skill in the art would have been motivated to make those modifications, because it would allow more active agents to enter the systemic circulation, and reasonably would have expected success because the prior arts and the instant claims dealt with the same subject matter of antibiotic controlled/modified-release formulation.

The references do not specifically teach adding the active ingredients in the amounts claimed by Applicant. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect

success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient to add in order to best achieve the desired results of plasma concentrations, Cmax, AUC, MIC, and Tmax. Thus, absent some demonstration of unexpected results from the claimed parameters, this optimization of ingredient amount would have been obvious at the time of Applicant's invention.

Telephonic Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jake M. Vu whose telephone number is (571) 272-8148. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jake M. Vu, PharmD, JD
Art Unit 1618

MICHAEL HARTLEY
PRIMARY EXAMINER